

What is claimed is:

1.           A magnetic encoder which comprises:  
          a multi-pole magnet having a plurality of opposite magnetic poles alternating in a direction circumferentially thereof; and  
          a core metal for supporting the multi-pole magnet;  
          said multi-pole magnet containing a powdery magnetic material mixed in an amount within the range of 20 to 90 vol.% relative to the total volume of the multi-pole magnet.
2.           The magnetic encoder as claimed in Claim 1, wherein the powdery magnetic material is mixed in an amount within the range of 30 to 80 vol.%.
3.           The magnetic encoder as claimed in Claim 1, wherein the powdery magnetic material is a powder of ferrite.
4.           The magnetic encoder as claimed in Claim 3, wherein the powdery magnetic material is a wet powder of anisotropic ferrite core.
5.           The magnetic encoder as claimed in Claim 1, wherein the powdery magnetic material includes samarium compound.
6.           The magnetic encoder as claimed in Claim 1, wherein the powdery magnetic material includes neodymium compound.
7.           The magnetic encoder as claimed in Claim 1, wherein the multi-pole magnet is prepared from a sintered element made of a powdery mixture of the powdery magnetic and non-magnetic metallic materials.
8.           The magnetic encoder as claimed in Claim 7, wherein the powdery non-magnetic metallic material is a powder of stainless steel.
9.           The magnetic encoder as claimed in Claim 7, wherein the powdery non-magnetic metallic material is a powder of tin.
10.          The magnetic encoder as claimed in Claim 7, wherein the powdery mixture includes two or more powdery magnetic materials or two or more powdery non-magnetic metallic material.

11. The magnetic encoder as claimed in Claim 1, wherein the powdery magnetic material includes two or more powdery magnetic materials.

12. A wheel support bearing assembly provided with a magnetic encoder as defined in Claim 1.

13. The wheel support bearing assembly as claimed in Claim 12, wherein the wheel support bearing assembly is for supporting a wheel for rotation relative to a vehicle body, said wheel support bearing assembly comprising:

an outer member having an inner peripheral surface formed with a plurality of first raceways;

an inner member having a corresponding number of second raceways defined therein in alignment with the first raceways in the outer member;

rows of rolling elements rollingly received in part within the first raceways and in part within the second raceways, said wheel bearing assembly comprises;

a sealing unit for sealing an annular bearing space delimited between the outer member and the inner member, said sealing unit including a first sealing plate of a generally L-sectioned configuration mounted on one of the outer and inner members which serves as a rotatable member, and a second sealing plate of a generally L-sectioned configuration mounted on the other of the outer and inner members which serves as a stationary member, and positioned in face-to-face relation with the first sealing plate, said first sealing plate defining the core metal of the magnetic encoder and having a cylindrical axial wall and a radial upright wall; and

an elastic sealing member including a side sealing lip and at least one radial sealing lip, said elastic sealing member being secured to the second sealing plate with the side sealing lip slidably engaging the radial upright wall of the first sealing plate and with the at least one radial sealing lip slidably engaging the cylindrical axial wall;

wherein the multi-pole magnet is mounted on the radial upright wall of the first sealing plate.